

# Arkansas Forestry Commission

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## PINE SAWFLIES

**HOST:** Loblolly, shortleaf and occasionally other pines.

**IMPORTANCE:** The redheaded pine sawfly, (*Neodiprion lecontei*), loblolly or Arkansas pine sawfly (*N. taedae lineari*), and blackheaded pine sawfly (*N. excitans*) commonly attack pines in Arkansas. Usually they attack single or small groups of trees; however, if conditions are favorable, they may infest and defoliate thousands of acres. In rare cases, repeated attacks for two or more years may cause mortality, but the main loss is tree growth.

**IDENTIFICATION:** Adults are small heavy-bodied four-winged “flies,” which are seldom observed. Larvae, which resemble caterpillars, are one inch long when mature. Redheaded pine sawfly larvae are yellowish-green with six rows of conspicuous black spots and a red head. Loblolly pine sawfly larvae are green with black lines along the body and a brown head. Blackheaded pine sawfly larvae are mostly green with black lines and a black spot near the end of the body and a black head.



**SIGNS OF ATTACK:** Sawfly attacks usually go unnoticed until needles are almost completely consumed, or until larvae are almost fully developed and large numbers are clustered in groups. Reddish straw-like remains of needles indicate feeding by young larvae. Silk-woven cocoons are found in the litter layer or on the tree during late-summer to early-fall months.

**LIFE CYCLE:** In spring, females lay eggs in needles of host pines. Individual slits are cut for each egg with a saw-like ovipositor and multiple eggs are laid in each needle. Larvae feed on the needles and mature in 3 to 6 weeks. Larvae use silken cocoons to pupate in duff and litter. Cocooning may also occur on needles, limbs and trunk of the tree, particularly if the ground is flooded. Loblolly pine sawflies are spring feeding and have one generation per year. Blackheaded and redheaded sawflies are summer feeding and have more than one generation each year but usually no more than three.



**CONTROL:** Chemical controls are not recommended or necessary in forests since heavy defoliation and large outbreaks occur only sporadically. Even though hundreds of acres of pines may be defoliated in one year, few larvae or defoliated trees are observed the next because of natural controls, e.g., weather, predators, parasites, and viral disease. Additionally, a dense population of larvae may deplete a food source too quickly, thus lowering overall survival. If high numbers require control by insecticides, foliar spray equipment may be used. For ornamental plants, hand-picking or hand-spraying may easily control the insects.

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